



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,881	03/15/2004	Herman R. Person	P06490US1	1948
34082	7590	06/23/2004	EXAMINER	
ZARLEY LAW FIRM P.L.C. CAPITAL SQUARE 400 LOCUST, SUITE 200 DES MOINES, IA 50309-2350			TRIEU, THAI BA	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/800,881	PERSON ET AL.	
	Examiner	Art Unit	
	Thai-Ba Trieu	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

The Preliminary Amendment filed on March 15, 2004 is acknowledged. Claims 3, 8-9 were amended, and claim 14 was cancelled.

Claim Objections

Claims 8 and 10 are objected to because of the following informalities:

- In claim 8, line 7, --,-- should be inserted between ***"compressed fuel"*** and ***"the ignition chamber"***.
- In claim 10, line 3, ***"will cause"*** should be replaced by -- ***causes*** --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Beaufort (Patent Number FR 501417).

Regarding claims 1-6, Beaufort discloses a rotary internal combustion engine (Not Numbered), comprising:

a compression chamber adapted to receive fuel and compress the fuel

(See Figures 1-3, Page 1, line 25-62, and Page 2, lines 1-2);

an ignition chamber (Read as a chamber having a spark plug 21) adapted to receive compressed fuel from the compression chamber and combust the compressed fuel (See Figures 1-3, Page 2, lines 3-39);

a center wall between the compression chamber and ignition chamber adapted to allow passage (via 10, 10') of compressed fuel from the compression chamber to the ignition chamber (Read as a chamber having a spark plug 21) (See Figures 1-3);

a shaft being concentrically disposed and extending through the compression chamber, the ignition chamber (Read as a chamber having a spark plug 21) and the center wall (See Figures 1-3);

a first rotor (4) rotatably received within the compression chamber and a second rotor (14) rotatably received within the ignition chamber (See Figures 2-3);

wherein each rotor (4, 14) has a vane (1, 2, 3, 11, 12, 13) slidably mounted in a radially extended slot (Not Numbered) so that rotation of the rotors causes outer ends of the vane to engage the chambers to vary the space on opposite sides of the vane when the rotors (4, 14) are rotating (See Figures 2-3); and

a transfer port (10, 10') in the center wall adapted to permit compressed fuel to move from the compression chamber into the ignition chamber (See figures 2-3, Page 1, lines 55-60, and Page 2, lines 7-14);

wherein a transfer port (10,10') in the center wall adapted to permit compressed fuel to move from the first rotor (4) to the second rotor (14), and wherein the first rotor (4) includes a fuel injection port (7) for permitting the flow of fuel from the compression chamber to the transfer port (10, 10'); and wherein an ignition port in the second rotor (14) conveys fuel from the transfer port (10, 10') to the ignition chamber (See Figures 1-3).

Regarding claims 8-9 and 11-13, Beaufort discloses a rotary internal combustion engine, comprising:

a compression chamber adapted to receive fuel and compress the fuel (See Figures 1-3, Page 1, line 25-62, and Page 2, lines 1-2);

an ignition chamber (Read as a chamber having a spark plug 21) adapted to receive compressed fuel from the compression chamber and combust the compressed fuel, the ignition chamber being aligned with the compression chamber (See Figures 1-3, Page 2, lines 3-39);

a center wall between the compression chamber and ignition chamber (Read as a chamber having a spark plug 21) adapted to allow passage (10, 10') of compressed fuel from the compression chamber to the ignition chamber (Read as a chamber having a spark plug 21) (See Figures 1-3);

a shaft being disposed concentrically and extending through the compression chamber, the ignition chamber (Read as a chamber having a spark plug 21), and the

Art Unit: 3748

center wall; the compression chamber and the ignition chamber having an oval shaped chamber wall (See Figure 1-3);

a first rotor (4) having a circular perimeter surface rotatably received within the compression chamber (See Figures 1-3); and

a second rotor (14) having a circular perimeter surface rotatably received within the ignition chamber (Read as a chamber having a spark plug 21) (See Figures 1-3);

wherein the oval shape of the compression chamber and ignition chamber (The oval shape being clearly shown in Figures 1-2); wherein the chamber walls having arcuate compartment zones between perimeter surfaces of the rotors (4, 14) and the lengthwise ends (See Figures 1-2);

transfer ports (10, 10') in the center wall adapted to permit compressed fuel to move from the compression chamber into the ignition chamber (Read as a chamber having a spark plug 21) (See Figures 1-3);

wherein the first rotor (4) includes fuel injection ports (via 7) for permitting the flow of fuel from the compression chamber to the transfer ports (10, 10') (See Figure 1); and

wherein ignition ports in the second rotor (14) to convey fuel from the transfer ports (10, 10') to the ignition chamber (Read as a chamber having a spark plug 21) (See Figures 1-3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaufort (Patent Number FR 501,417), in view of Zabriskie (Patent number 1,267,157).

Beaufort discloses the invention as recited above; however, Beaufort fails to disclose a plurality of the rotary internal combustion engines being used in series along the same axis of rotation.

Zabriskie teaches that it is conventional in the rotary engine art, to utilize a plurality of the rotary internal combustion engines (10,11) being used in series along the same axis of rotation (29) (See Figure 1).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a plurality of the rotary internal combustion engines being used in series along the same axis of rotation, as taught by Zabriskie, to improve the performance efficiency, in the Beaufort device, since the use thereof would have increased the power of the engine.

Art Unit: 3748

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beaufort (Patent Number FR 501,417), in view of Lepine (Patent number 3,716,033).

Beaufort discloses the invention as recited above; however, Beaufort fails to disclose each rotor having a pair of oppositely disposed vanes.

Lepine teaches that it is conventional in the rotary internal combustion engine art, to utilize each rotor (24, 22) has a pair of oppositely disposed vanes (36) slidably mounted in radially extended slots so that rotation of the rotors causes outer ends of the vanes to engage the chambers to vary the space on opposite sides of the vanes when the rotors (24,22) are rotating (See Figure 1).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized each rotor having a pair of oppositely disposed vanes, as taught by Lepine, since the use thereof would have created operating ignition and compression portions in the Beaufort rotary engine

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Luciani (Patent Number FR 2 627 544 A1) discloses a two-cycle rotary internal combustion engine.
- Hosoyama (Patent Number JP 55066601 A) discloses a rotary engine.

Art Unit: 3748

- O' Brien (Patent Number WO 99/04141 A1) discloses a vane type rotary engine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (703) 308-6450. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTB
June 18, 2004



Thai-Ba Trieu
Patent Examiner
Art Unit 3748